



Fact Sheet:

April 1997

(LL 28)

DROP ZONE REHABILITATION

The Problem

Land rehabilitation at military drop zones presents several unique and interesting aspects. Drop zones must be kept clear of woody vegetation and the maintenance procedures used to achieve this condition often contribute to erosion. To achieve sufficient land area for operations often requires extension of drop zone boundaries into areas with steeper slopes. Such areas receive concentrated overland flow and are highly susceptible to gully development. Solutions to erosion control problems must be carefully selected to be compatible with unique training-related constraints.

The Technology

A series of test and evaluation projects are underway at Fort Bragg, NC. The projects involve tests of alternate approaches, materials, and methods of accomplishment. Previous land rehabilitation at Sicily Drop Zone followed a traditional conservation approach using terraces, rock rip rap in drainage ways, and a downstream sediment basin. This approach is effective and durable, but cost was high and rock rip rap was not compatible with training land use. Two different designs are being tested at Salerno Drop Zone. One design involves land reshaping, construction of terraces, and installation of sub-surface drainage pipe. This project was implemented by contract through Savannah District. The second design involves land reshaping and installation of erosion control

blankets along drainage ways. This project will be implemented using Fort Bragg personnel, military and civilian. A third test is planned for Normandy Drop Zone for a design and method of accomplishment to be determined.

Savings/Benefits

The cost of implementing the first test at Salerno Drop Zone was about \$3K per acre compared to a cost of about \$22K per acre experienced from using the conventional approach. The cost per acre for the second test at Salerno is expected to be even lower. Preliminary response from Fort Bragg is that the terrace/sub-surface pipe approach will be compatible with training land use. Continued monitoring will determine durability and maintenance requirements. A cost-saving lesson about specification of revegetation requirements was learned during the first test. Most contracts specify that contractors must guarantee a certain percent emergence success. To insure against the requirement to return and re-seed due to an emergence problem, contractors may increase their cost estimates up to three times actual costs of planting. If installation land managers are willing and able to fix any bare spots using in-house resources then substantial savings can be realized in total project cost.

Status

Implementation of the second test at Salerno Drop Zone is scheduled for 3rd Qtr, FY97. Monitoring of completed tests and implementation of additional tests are expected to continue for several years.

Points Of Contact

The CERL POC is Dr. M. Sharif, COMM 217-398-5519, e-mail m-sharif@cecer.army.mil, FAX 217-398-5470 or CERL, ATTN: CECER-LLR, P.O. Box 9005, Champaign, IL 61826-9005.

The Fort Bragg POC is Craig Lantz, COMM 910-396-7506, ext 136, DSN 236-7506, FAX 910-396-9474 or XVIII Airborne Corps & Fort Bragg, ATTN: AFZA-PW-DP (Craig Lantz), Fort Bragg, NC 28307-5000.

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